The Importance of Stitching Wire

Saddlestitching has been successfully used as a binding process in print media for many years. The simple, low cost process is ideal for catalogs, brochures, calendars, annual reports and many more binding needs.

It's important to the industry because saddlestitching offers a choice in the binding process, with benefits and characteristics that outperform other methods. Stitching is simple to lay out, fast to process and, with the third stitch application, offers long life expectancy that outlasts that of a product produced using perfect binding technology. Saddlestitching has better cross-over properties, enhances the center spread ad space and allows for a smaller chance of product failure due to its simple design.

The benefits to companies using stitching over perfect bound technology include low investment costs, low maintenance and lower capital equipment cost. In addition to cost factors, stitching provides a safe, predictable profit margin. Unlike perfect bound technology, stitching is safe for both equipment operators and the environment. Stitching is the answer for a low-cost, flexible solution for binding needs.

How Does Stitching Impact the Bottom Line?

With proper set up, a company is ensured profitability with stitching. This simple, straight forward application makes it easy to estimate jobs, unlike more complicated forms of binding. A company's profitability is dependent upon reduced down time and maximum operating speeds. Operator experience, excessive downtime and low-quality wire all are factors which contribute to frustrations in the stitching department.

In order to achieve success and increase profitability, a company must recognize that trained and knowledgeable operators are essential to a company's output. The choice of high-quality wire and the proper set-up of the stitching line all contribute to a company's profits. Poor performance of stitching wire is one of the most costly issues in the bindery today. A wide range of issues can arise when running low quality wire, including operator frustration, unexpected down time, excessive head repair and slower production speeds – just to name a few. Low quality wire can cost a company heavy per year with a down time every day. If a bindery has a low performing stitching line, upgrading to a premium wire could be the answer. The solution to many of the common saddle stitching issues can be overcome by utilizing a high quality wire. A high quality wire will not flake, is pre-lubricated and is spooled properly on a strong, reliable spool.

What Factors Should be Considered When Purchasing Wire?

Wire is often thought of as a simple product that is just another commodity, when in fact it means the difference between making or losing money on many jobs. Is a high quality wire being used in the binding process? Does the vendor know where the wire is made? Does the vendor have control over the quality of the wire? Does the wire comply with consumer product safety concerns (for example, what is the lead content)?

There are three major factors to consider in the quality of wire:

- Surface condition and tensile
- Coating quality and lubrication
- Wire cast (how well the wire flows off the spool)

Surface Condition & Tensile: The most common issue affecting wire surface condition and roundness of the wire is the quality of the drawing dies and how well the drawing process is maintained. The die is just like any other knife. When dull, it will scar the

surface. Dull drawing dies also will heat up the wire, changing its properties and causing uneven tensile throughout the spool of wire.

Coating & Lubrication: Zinc-coated wire, also known as galvanized wire, is the most common type of wire used in saddlestitching today. There still are some companies using tin-coated wire, but it is expensive and does not provide any measurable benefits over a high-quality galvanized product. Stainless steel is another option. Stainless wire should be considered if the end product will be in an environment where the wire is exposed to extreme conditions or because of industry requirements. Medical, food, and pharmaceutical packaging are included in this area.

The corrosion resistance coating on wire is a critical component of wire performance. If the coating is too thick or and has an uneven thickness, it can cause flaking. This is a common problem with low-quality wire. This increases wear and tear on the stitching head components and leads to higher maintenance cost. In manufacturing electroplated wire, the zinc bath must be maintained and checked on every wire lot. If the zinc bath is

out of its normal operation parameters, it must be adjusted to avoid poor coating conditions. If a binder is experiencing flaking issues or a buildup of zinc dust on the stitching heads, a premium wire product can eliminate these issues and save money.

A high quality wire will be pre-lubricated during the manufacturing process with a very light coating of oil on the surface. This lubrication is actually absorbed by the wire, giving it a super smooth surface. The application of this coating is critical and ensures performance of the wire as it de-spools and travels through the head. A high quality wire has a proper amount of lubrication to increase line speed and eliminate the adhesion of zinc dust to head parts. In many cases, a low quality wire will have too much or no oil. Too much oil can be as bad as not enough, causing the heads to gum up and slowing production reduce run speeds.

Wire Cast & Spooling: Wire cast refers to how smoothly and evenly the wire flows off the spool. When spooled properly, wire should have a large cast (more than 1.5 times the diameter of the spool) when the wire is allowed to run free on a flat surface. The wire also should lay flat and not tangle or twist.

Stitching wire issues are not always obvious. Sometimes, they appear to be mechanical issues or even operator issues. Before spending money on new stitching heads or reprimanding operators, it's always a good idea to take a hard look at the stitching wire being used.

Will Spending a Little More on a High-Quality Wire Help My Process?

Using a premium stitching wire can dramatically help improve the throughput process (the number of products produced in eight hours divided by 8). As a gauge, the throughput should be 80 percent or higher of the mechanical speed of the stitching line. Once the machine is running, it should run non-stop until the operator shuts it off. The printed product is seldom the cause of a shut down. If a binder is experiencing low throughput on a stitching line, eliminate one very large variable – low-quality wire. A high-quality wire will reduce down time, reduce head maintenance, reduce operator frustration, increase throughput and increase the profitability of the binding operation.

Companies using high-quality wire on well maintained stitching lines will win more orders. Investing in high-quality wire reduces the cost per stitch, allows the binder to produce a more accurate quote and puts more money on the bottom line.

Courtesy Delhi Printers 17

Pramod Engineering offers easy EMIs for cost effective investment

Pramod Engineering have devised a unique system of sales for the print-industry by offering our latest model of 3-knife Trimmer "Trim Star" on easy payment terms by paying 25% down payment (i.e. Rs. 4.72 lac) and the balance amount in 24 easy installments at prevailing bank interest rates.

Like in other industries, change is inevitable in the printing industry as well. The Indian print industry is changing at an intensive speed in the in-press operation – whereas at post-press stage it is still struggling either with conventional binding operation mostly involving manual operation.

Pramod Engineering have come forward to contribute in this fast forward progress of Indian print industry by giving a real professional support to the printers who are in need of cost-effective post-press (binding) machines with International standards and tried and tested technologies and have offered easy installment scheme to acquire such machines with mere 25% down payment.

"Trim Star" 3-knife Trimmer produces 15 cuts a minute at 80mm pile height (or 900 book block cuts per hour of 80mm or equivalent thickness).

Courtesy Delhi Printers